AMENDMENTS TO THE CLAIMS

1. (Currently amended) A data channel tuner comprising:

an input interface for accepting said data channel, wherein said input interface further accepts signal energy at a frequency associated with an image of said data channel as mixed by said tuner;

a filter network coupled to said input interface, wherein said filter network utilizes ~~one or more filters, and wherein said one or more~~ filters comprising ~~comprise~~ only first order filters, second order filters, or a combination thereof, a first filter of said filter network coarsely filtering signals at approximately 150 MHz and higher, a second filter of said filter network attenuating signals at 142 MHZ and higher; and

an image reject mixer coupled to said filter network and providing frequency conversion of said data channel, the image reject mixer rejecting at least a portion of undesired signal energy.

2. (Previously Presented) The tuner of claim 1, wherein said filter network does not require manual tuning or adjustment.

3. (Previously Presented) The tuner of claim 2, further comprising:

an output interface coupled to said image reject mixer providing said frequency converted data channel having a signal to noise and distortion of approximately 20 dB; and wherein signal energy of said data channel is approximately 20 dB lower in amplitude than said image frequency signal energy.

4. (Previously Presented) The tuner of claim 3 wherein said filter network provides approximately 20 dB of rejection of said image frequency signal energy, and wherein said image reject mixer provides approximately 20 dB of rejection of said image frequency signal energy.

5. (Canceled)

6. (Previously Presented) The tuner of claim 1, wherein said filter network utilizes only first order filters.

7. (Original) The tuner of claim 6, wherein said filter network comprises 2 first order filters.

8. (Previously Presented) The tuner of claim 1, further comprising:

at least one amplifier disposed in a signal path between a filter of said filter network and said image reject mixer.

9. (Original) The tuner of claim 8, wherein said at least one amplifier and said image reject mixer are implemented using integrated circuit technology on a same substrate to thereby provide a highly integrated tuner circuit.

10. (Original) The tuner of claim 9, wherein said filter network is implemented using integrated circuit technology on said same substrate to thereby provide a substantially completely integrated tuner circuit.

11. (Previously Presented) The tuner of claim 1, wherein said image frequency signal energy is at a frequency approximately 10% removed from a frequency of said data channel.

12. (Original) The tuner of claim 11, wherein said image frequency signal energy is a frequency of approximately 142 MHz.

13. (Original) The tuner of claim 12, wherein said frequency of said data channel is approximately 130 MHz.

14. (Original) The tuner of claim 11, wherein said data channel is in the range of from approximately 70 MHz to 130 MHz, said frequency converted data channel is in the range of from approximately 36 MHz to 45 MHz, and said image frequency signal energy is in the range of from approximately 142 MHz to approximately 220 MHz.

15. (Original) The tuner of claim 1, wherein said data channel comprises a forward data channel and said image frequency signal energy comprises a forward access terminal signal.

16. (Original) The tuner of claim 1, wherein said data channel comprises a digital data stream.

17. (Currently amended) A system for providing tuning of a particular signal in a signal stream including additional signal energy at an image frequency of said particular signal as frequency converted by said system, said system comprising:

a filter network comprising a first filter coarsely filtering signals at approximately 150 MHz and higher and a second filter attenuating signals at 142 MHZ and higher; and

an image reject mixer coupled to said filter network for providing frequency conversion of said particular signal and rejection of said additional signal energy at 142 MHz, wherein a signal energy of said particular signal is substantially less than said additional signal energy, said signal stream as converted being substantially without said additional signal energy.

18. (Original) The system of claim 17, wherein said particular signal and a signal corresponding to said additional signal energy are separated in frequency by approximately a 10% frequency difference.

19. (Currently amended) The system of claim 17, ~~wherein said filter network comprises:~~

~~a first filter providing coarse rejection of said additional signal energy,~~ wherein said first filter is a first order filter; and

wherein the ~~a~~ second filter is coupled to said first filter and provides ~~providing~~ less coarse rejection of said additional signal energy, wherein said second filter is a first order filter.

20. (Original) The system of claim 19, wherein said first and said second filters provide approximately 20 dB of signal rejection and said image reject mixer provides approximately 20 dB of signal rejection.

21. (Previously Presented) The system of claim 19, wherein said first and second filters are the only filters utilized by said system in a signal path prior to said image reject mixer and do not require manual tuning or adjustment.

22. (Original) The system of claim 19, wherein said image reject mixer is implemented as an integrated circuit, and wherein at least one of said first and second filters is implemented as an integrated circuit on a common substrate as said image reject mixer.

23. (Original) The system of claim 17, wherein said additional signal energy as present in said signal stream is approximately 20 dB above said particular signal as present in said signal stream.

24. (Original) The system of claim 23, wherein a frequency converted said particular signal output by said image reject mixer has a signal to noise and distortion of approximately 20 dB.

25. (Original) The system of claim 17, wherein said image reject mixer is implemented as an integrated circuit.

26. (Original) The system of claim 17, wherein said particular signal comprises a forward data channel and said additional signal energy is associated with a forward access terminal signal.

27. (Original) The system of claim 17, wherein a frequency of said additional signal energy is in the range of approximately 142 MHz to 220 MHz.

28. (Original) The system of claim 27, wherein a frequency of said particular signal is in the range of approximately 70 MHz to approximately 130 MHz.

29. (Currently amended) A method for tuning a particular signal from a signal stream, said method comprising:

providing said signal stream having a first signal and a second signal both utilized substantially simultaneously by a subscriber station, wherein said second signal is offset from said first signal such that said second signal corresponds to an image frequency of said first signal;

coarsely filtering said signal stream at approximately 150 MHz and higher with a first filter and subsequently attenuating signals at 142 MHZ and higher with a second filter, ~~filtering said signal stream with a filter network utilizing one or more filters~~, wherein said ~~one or more~~ filters comprise only first order filters, second order filters, or a combination thereof; and

mixing said signal stream using an image reject mixer to provide a frequency converted ~~said~~ first signal substantially without said second signal ~~rejection of said additional signal energy~~ by rejecting signals at 142 MHz, wherein a signal energy of said first signal is substantially less than a signal energy of said second signal.

30. (Original) The method of claim 29, wherein said first signal comprises a forward data channel and said second signal comprises an application channel.

31. (Previously Presented) The method of claim 29, wherein said filtering comprises:

filtering said signal stream to provide relatively coarse filtering of said second signal prior to said mixing said signal stream.

32. (Currently amended) The method of claim 31, wherein said filtering comprises:

coarsely filtering said signal stream using a first ~~first~~ order filter or second order filter; and

less coarsely filtering said signal stream using a second first order filter.

33. (Original) The method of claim 29, wherein said first signal is approximately 20 dB down from said second signal.

34. (Currently amended) A method for providing tuning of a data channel in a signal stream having an application signal offset from said data signal such that said application signal corresponds to an image frequency of said data signal, said method comprising:

coarsely filtering said signal stream at approximately 150 MHz and higher with a first filter and subsequently attenuating signals at 142 MHZ and higher with a second filter, ~~filtering said signal stream with one or more filters~~, wherein said ~~one or more~~ filters comprise only first order filters, second order filters, or a combination thereof, and wherein said ~~one or more~~ filters do not require manual tuning or adjustment~~, said filtering to provide relatively coarse filtering of said application signal~~; and

mixing said filtered signal stream using an image reject mixer to provide a frequency converted said data channel substantially without said application signal.

35. (Currently amended) The method of claim 34, wherein said filtering comprises:

coarsely filtering said signal stream using a first ~~first~~ order filter; and

less coarsely filtering said signal stream using a second first order filter.

36. (Original) The method of claim 34, wherein a signal of said data channel is approximately 20 dB down from said application signal.

37. (Original) The method of claim 36, wherein said filtering provides approximately 20 dB of signal rejection with respect to said application signal and said mixing provides approximately 20 dB of signal rejection with respect to said application signal.

38. (Original) The method of claim 37, wherein said frequency converted data channel has a signal to noise and distortion of at least 20 dB.

39. (Currently amended) A method for providing tuning of a signal of interest appearing in a signal stream including said signal of interest and a signal at an image frequency of said signal of interest, said method comprising:

providing said signal stream to a tuner circuit including an image reject mixer, wherein said image frequency signal as provided to said tuner circuit is substantially greater in amplitude than said signal of interest;

filtering said signal stream using a first filter that coarsely filters said signal stream at approximately 150 MHz and higher and a second filter that subsequently attenuates signals at 142 MHZ and higher ~~one or more filters~~; and

mixing said signal stream using said image reject mixer to provide a frequency converted said signal of interest substantially without said image frequency signal.

40. (Previously Presented) The method of claim 39, wherein said filtering comprises:

processing said signal stream by said tuner circuit to filter approximately 20 dB of said image frequency signal.

41. (Currently amended) The method of claim 39, wherein said filtering comprises:

coarsely filtering said signal stream using a first ~~first~~ order filter; and

less coarsely filtering said signal stream using a second first order filter.

42. (Original) The method of claim 39, wherein said signal of interest is offset from said image frequency signal by approximately a 10% frequency difference.

43. (Original) The method of claim 42, wherein said image frequency signal includes a signal at approximately 142 MHz and said signal of interest includes a signal at approximately 130 MHz.

44. (Original) The method of claim 39, wherein said mixing provides at least 20 dB of signal rejection with respect to said image frequency signal.

45. (Original) The method of claim 39, wherein said frequency converted signal of interest has a signal to noise and distortion of at least 20 dB.

46. (Currently amended) A method for providing tuning of a forward data channel approximately 20 dB down from a forward application terminal signal in a signal stream, said method comprising:

coarsely filtering said signal stream at approximately 150 MHz and higher and less coarsely filtering said signal stream at 142 MHZ and higher, the filtering providing ~~said signal stream utilizing one or more filters to provide~~ approximately 20 dB of filtering of said forward application terminal, wherein said ~~one or more~~ filters comprise only first order filters, second order filters, or a combination thereof and said filters do not require manual tuning or adjustment; and

mixing said filtered signal stream using an image reject mixer to provide a frequency converted said forward data channel substantially without said forward application terminal signal.

47. (Currently amended) The method of claim 46, wherein said filtering comprises:

coarsely filtering said signal stream using a first ~~first~~ order filter; and

less coarsely filtering said signal stream using a second first order filter.

48. (Original) The method of claim 46, wherein at least a portion of said forward application terminal signal is offset from said forward data channel by approximately a 10% frequency difference.

49. (Previously Presented) The method of claim 29, wherein said filter network does not require manual tuning or adjustment.